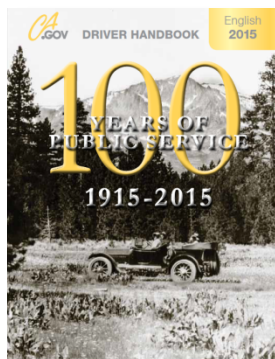


Do you still have questions? Go to the Caltrans website at www.dot.ca.gov and type "MUTCD" in the search box to find the *California Manual on Uniform Traffic Control Devices*. Go to Chapter 4B then Section 4B.03. Another web site to visit is the DMV at www.dmv.ca.gov. Click on "Driver License" then DMV Publications" then "Driver Handbook". In the section called "Traffic Controls" is a subsection called "Traffic Signal Lights".



You can also contact the City's Traffic Engineering Division at (562) 570-6331.



Traffic control laws are enforced by the Long Beach Police Department. If you have an enforcement question or request, please contact the Patrol Bureau – Traffic at (562) 570-7209.

The City of Long Beach is committed to providing its citizens with the safest and most efficient transportation system possible. This pamphlet is designed to provide you with useful and helpful information regarding traffic control.



City of Long Beach Public Works

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TRAFFIC SIGNALS

An informational pamphlet on the proper function of traffic signals



CITY OF
LONG BEACH

WHY DO WE HAVE TRAFFIC SIGNALS?

Traffic signals regulate traffic by alternating the right-of-way to vehicles, bicycles, and pedestrians that are going in different directions through an intersection. Traffic signals that are properly designed, located, operated, and maintained have some or all of the following advantages:

- Improves the safety and efficiency of both pedestrian and vehicular traffic
- Increase the traffic handling capacity of an intersection
- Lower the number of collisions, especially broadside crashes
- If coordinated, they allow traffic going one direction to travel almost without stopping
- Interrupt heavy traffic so motorists on side streets can cross the road

HOW MUCH DO TRAFFIC SIGNALS COST?

Traffic signals cost a lot more than most people think. First, the engineering and traffic study, plus all the field work, needs to be done. Next, a design plan needs to be created. The cost of the traffic signal and installation alone is \$200,000 to \$300,000, depending on how complicated it is. Then electrical power must be provided to the traffic signal 24 hours a day, and it must be routinely serviced to make sure it operates correctly.

HOW DOES THE CITY KNOW WHERE TO PUT A TRAFFIC SIGNAL?

First, the City does an engineering and traffic study to see if certain conditions, or “warrants” are met. Warrants that are used to decide if a traffic signal is needed include:

- The amount of traffic that goes through the intersection
- The number of pedestrians that cross the street
- The locations of nearby schools
- Coordinated traffic signal network
- The number of collisions that have happened at the intersection
- The speed limit

After the study is done, the City then looks at the area around the intersection and asks questions like:

- Is the intersection on a curve or hill?
- Are there going to be more homes, stores, or businesses built nearby?
- Will there be less of one kind of collision but more of another kind if a traffic signal is installed (for example, will there be less broadsides but more rear end crashes)?
- Do a lot of motorists speed through the intersection?

After gathering all that data, and conducting a thorough investigation & analysis, installation of a traffic signal can be justified.

WHY CAN'T THE GREEN AND YELLOW LIGHTS BE LONGER?

Durations of green and yellow lights are determined by considering the type and location of intersections, speed limit of the roads, motorists behavior and volumes of turning movements at the intersections. Optimized and most effective durations are then calculated for the green and yellow lights based on national and state standards and guidelines to assure safe and smooth operation of the intersections.

SHOULDN'T THERE BE TRAFFIC SIGNALS EVERYWHERE?

Many people think traffic signals can solve all traffic problems. A thorough evaluation is done before installing a traffic signal. Unjustified traffic signals pose a lot of problems. These extra traffic signals can make traffic worse since they:

- Increase the time it takes to drive that road
- Increase the traffic on side streets as motorists try to avoid the signals
- Increase the number of red light runners
- Increase the number of rear-end collisions

